

REMARKS:

In the foregoing amendments, claims 15 and 16 were amended to include an amount of Xe of about 1 to 100 ppm. Claim 20 was rewritten as an independent claim including the limitations of claim 18 from which it depended. Amended claim 21 also requires an amount of Xe of about 1 to 100 ppm. This limitation of 1 to 100 ppm of Xe is set forth in previously presented claims 21 and 22 and is described in applicant's specification disclosure. Claims 18 in 19 were canceled. Accordingly, claims 15-17 and 20-22 remain in the application for consideration by the examiner.

Applicant respectfully requests that the foregoing amendments be entered under the provisions of 37 C.F.R. § 1.116(b) for the purposes of placing the application in condition for allowance or for the purposes of appeal. Applicant greatly appreciates the courtesies Examiner Nguyn extended the undersigned in a personal interview on June 17, 2004. At this interview, the examiner indicated that if applicant cancels claim 15-20, he will allow claims 21 and 22. The examiner indicated that a reason for allowing claims 21 and 22 is that these claims set forth a numeric amount of 1-100 ppm of Xe. In the foregoing amendments, the remaining claims (15, 16, 17, and 20) were amended to include an amount of Xe of about 1-100 ppm or the claim was cancelled. For the foregoing reasons and for those that follow, it is believed that the foregoing amendments place the application in condition for allowance. Therefore, applicant respectfully requests that the examiner enter the foregoing amendments under the provisions of 37 C.F.R. § 1.116(b) for the

purposes of placing the application in condition for allowance or for the purposes of appeal.

The Official action set forth a single prior art rejection of applicant's claims. Claims 15-17 and 20-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent No. 5,090,020 of Bedwell. This rejection is set forth on page 2 of the Official action. Applicant respectfully submits that the teachings of Bedwell do not disclose or suggest the invention as set forth in claims 15-17 and 20-22 within the meaning of 35 U.S.C. § 102 or 35 U.S.C. § 103.

The teachings of Bedwell simply do not contemplate or suggest the inventions as set forth in applicant's claims 15-17 and 20-22, which require an about 1-100 ppm of Xe in the laser gas in addition to the halogen gas, the rare gas and the buffer gas. The teachings of Bedwell at column 3, lines 39-47, propose about 0.9% of one or more of xenon (Xe), krypton, and argon. This is an amount equivalent to about 9000 ppm, which is greatly in excess of the about 1-100 ppm of Xe that is required in the present claims.

Attention is respectfully directed to figure 2 of the present application. In this figure, A3 represents a curve having the buffer gas with Xe added in the amount set forth in the present claims. A1 represents a conventional buffer gas using Ne and not including Xe in the amount set forth in the present claims. As shown in figure 2, pulse output is not lowered even if the frequency becomes 1 kHz or higher. In general, the present inventors have discovered that if a small amount of Xe (1 to 100 ppm) is added to the laser gas in

accordance with the presently claimed invention, the output of the laser is improved and stabilized; when compared to an identical laser gas without the additional small amount of Xe, as required in the present claims. Applicant respectfully submits that this is an unexpected and surprising advantage of the presently claimed invention as would be understood by any person skilled in this art. Therefore, applicant respectfully submits that the presently claimed invention is distinguishable from the teachings of Bedwell and that the examiner should reconsider and withdraw this rejection.

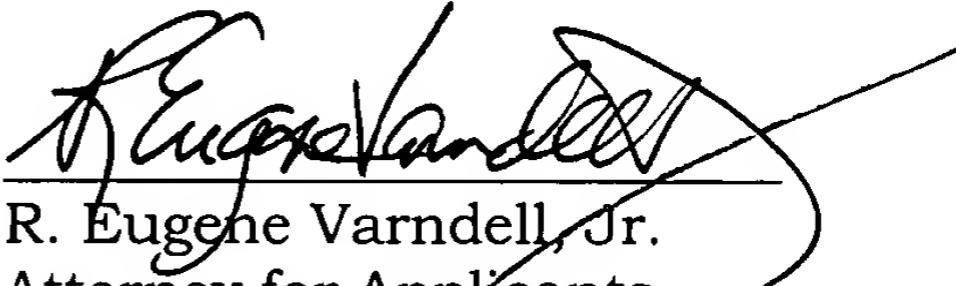
The teachings of Bedwell also do not contemplate or suggest the arrangements of pipes and valves as set forth in applicant's claims 21 and 22. The arrangements of the first and second pipings in combination with the first, second and third valves and pressure gauge are specifically set forth in claims 21 and 22. These claims set forth a structure and method to easily add a trace quantity of Xe to the laser gas. The teachings of Bedwell do not remotely contemplate or suggest the structure and/or method set forth in these claims. Therefore, applicant respectfully submits that claims 21 and 22 are patentably distinguishable from the teachings of Bedwell.

For the foregoing reasons, applicant respectfully submits that claims 15-17 and 20-22 are distinguishable from the teachings of Bedwell within the meaning of 35 U.S.C. § 102 or 35 U.S.C. § 103. Therefore, applicant respectfully requests that the examiner reconsider and withdraw the rejection over these teachings.

In light of the foregoing amendments and remarks, a formal allowance of claims 15-17 and 20-22 is respectfully requested. While it is believed that all the claims in this application are in condition for allowance, should the examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged to our deposit account No. 22-0256.

Respectfully submitted,
VARNDELL & VARNDELL, PLLC


R. Eugene Varndell, Jr.
Attorney for Applicants
Registration No. 29,728

Atty. Case No. VX022097

106-A S. Columbus St.

Alexandria, VA 22314

(703) 683-9730

\\V:\VDOCS\W_DOCS\JUNE04\P052-2097 RSAF.DOC